DOCUMENT RESUME

ED 400 786 IR 018 133

AUTHOR Valovich, Diane E.
TITLE Strategic Planning for the Successful Integration of Technology in a Private School.
PUB DATE Aug 96
NOTE 72p.; Ed.D. Practicum, Nova Southeastern University.
PUB TYPE Dissertations/Theses - Practicum Papers (043) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS *Computer Attitudes; Computer Software Evaluation; *Educational Planning; *Educational Technology; Elementary Secondary Education; Pretests Posttests; *Private Schools; Staff Development; Strategic Planning; Surveys; *Teacher Response

ABSTRACT

This practicum provides solutions to private schools interested in creating a strategic plan for the integration of technology into all areas of the school program. In includes teacher participation and involvement in developing short and long term goals, ideas for developing continuing technology training for teachers, and a process for the evaluation of software. Through the formation of three committees: Technology Planning, Staff Development, and Software Evaluation, a venue was created for teacher participation in the technology planning process. Teachers worked together in creating a vision for the future that includes integrating technology into all areas of the curriculum. As a result of this planning process, teachers began to take a greater interest in technology. Many teachers served on committees, participated in inservice training programs, and developed more positive attitudes toward using technology in their classroom. Three figures present the technology integration summary; technology planning pre-test results; and technology planning posttest results. Appendices contain: the teacher survey (September 1995); technology planning survey (June 1996); teacher planbook insert; technology planning committee survey; staff development survey; technology audit form; CD-ROM evaluation form; software evaluation form; and sample committee journal. (Author/AEF)

Strategic Planning for the Successful Integration of Technology in a Private School

by
Diane E. Valovich
Cluster 66

A Practicum II Report Presented to
the Ed.D. Program in Child and Youth Studies
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Nova Southeastern University
1996

APPROVAL PAGE

This practicum took place as described.

Elizabeth C. Brennan

Verifier: Dr. Elizabeth Brennan

Director, Lower School - University School of Nova

7500 S.W. 36th Street - Ft. Lauderdale, FL 33314

9/2/94

Date

This practicum report was submitted by Diane Valovich under the direction of the advisor listed below. It was submitted to the Ed.D. Program in Child and Youth Studies and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Nova University.

Approved:

Date of Final Approval

Dr. Georgianna Lowen, Advisor

Table of Contents

Figures

Abstract

Strategic Planning for the Successful Integration of Technology in a Private School. Valovich, Diane E., 1996: Practicum Report, Nova Southeastern University, Ed.D. Program in Child and Youth Studies. Education Planning / Educational Technology / Strategic Planning.

This practicum provides solutions to private schools interested in creating a strategic plan for the integration of technology into all areas of the school program. It includes teacher participation and involvement in developing short and long term goals, ideas for developing continuing technology training for teachers, and a process for the evaluation of software.

Through the formation of three committees: Technology Planning, Staff Development, and Software Evaluation, the writer created a venue for teacher participation in the technology planning process. Teachers worked together in creating a vision for the future that includes integrating technology into all areas of the curriculum.

As a result of this planning process teachers began to take a greater interest in technology. Many teachers served on committees, participated in in-service training programs, and developed more positive attitudes toward using technology in their classroom.

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Chapter I: Introduction

Description of Community

A private, not-for-profit school, in the southeastern region of the United States, served as the setting for this practicum. The school is located in a small suburban community with a population of approximately 50,000. The town is mainly a college community with three higher education facilities within close proximity of each other. Although it is a suburban, college community, it is located only 30 miles from a large metropolitan area. Additionally, the community is located close to a major resort area that attracts many visitors to it's miles of beaches and resort hotels.

This private, coed, day school, serves as a laboratory school for one of the universities that is located in the town. Grades range from Pre-Kindergarten through 12th. The school has two campuses with a total enrollment of 1,792 students. Students who have average to gifted abilities, without regard to race, religion, sex, or national origin are accepted. Annual tuition ranges from $7,450.00 to $8,200.00.

The school's association with a university provides additional resources and benefits that are unparalleled in most private schools. Curriculum is enhanced by mentors and experienced professionals who provide enrichment. The university also provides support for programming and financial issues. Technology and library resources are also enhanced through the school's association with a major university.

The school's mission is to provide a humanistic and caring atmosphere for learning, with high expectations for student success. Programs and curriculum are designed to prepare students for college and for effective citizenship, and a desire for life-long learning. Teachers

accept that each student is unique in ability, talent, and learning style. Based upon that belief, each teacher strives to create a learning environment that meets the needs of every child. To insure success, parents are also expected to take an active part in their child's education.

The school is an active member of The Coalition of Essential Schools, a group committed to making reforms in education by creating self-directed learners. The teacher takes on the role of mentor and emphasis is placed on the student-as-worker. Additional emphasis is placed on developing the student's ability to master critical thinking skills. Technology is used as a means to provide an individualized education and to achieve the goals of the Coalition.

Description of Work Setting

The focus of this practicum was the elementary division of this school that is located on the main campus. The school is adjacent to the University campus, with it's own classroom and sport facilities. The elementary division accommodates Pre-Kindergarten through Grade 5 with a current enrollment of 619 students.

The majority of students come from professional families living in the surrounding communities, seeking an alternative to public education. Students must have average to gifted abilities. They must have a record of successful educational experience at their previous school, with no record of serious behavioral problems. Students with minor learning difficulties are offered a variety of tutorial programs. Only 4% of the total school population live within the school's community. The cultural and ethnic characteristics of the student body are diverse and represent approximately 21 different nationalities.

There are 41 full-time faculty and 11 full-time teacher aides. Over half of the teaching staff hold a Master's Degree. Teachers have an average of 11 years teaching experience. Classes are fairly small with a student teacher ratio of 15:1. Administrators include a Headmaster, Director and Academic Coordinator, Admissions Coordinator, and Guidance Counselor. Special area teachers include art, music, physical education, computer specialist, media specialist, learning resource specialists, typing, Spanish, and environmental science.

Writer's Role

The writer is the media specialist at the elementary division and serves as department chair. As media specialist she develops and administers programs that provide, maintain, and circulate books, media, and equipment. Additionally, the writer provides instruction in the use of the media center resources and assists students in developing competencies in listening, viewing, and reading skills.

She works with faculty to provide a correlation between the media center resources and the curriculum, often assisting as part of the teaching team. Monthly meetings with each grade team determine activities for small and large groups of students to develop skills in information retrieval, and in processing information according to their ability. An open schedule provides free access to the media center resources when it is needed by students and teachers.

The writer also develops a wide range of literature enrichment activities that are designed to instill in students a love of reading and an appreciation for books. Story-telling is provided for Pre-Kindergarten, Kindergarten, and Grade 1 students on a regular basis, coordinated with an activity that reinforces the theme of the story. Professional story-

tellers and puppeteers are arranged to provide children with alternate literary experiences. Two Book Fairs per school year are coordinated by the media specialist to promote and encourage reading and book ownership, and to raise supplementary funds to support the media center activities. Each year the writer develops an original summer reading program, centered around a theme, that provides a wide variety of activities for students to accomplish during the summer break.

The media center, which is fully automated, provides a variety of technologies for student and teacher use. The media specialist trains students in the use of the on-line network, CD-ROM resources, and individual programs they require in order to accomplish a variety of curriculum related tasks. She also provides one-on-one assistance in training teachers to use the library resources. When requested by the administration, she provides in-service training to faculty and staff.

It is the media specialist's responsibility to order books and other media that meet the instructional needs of teachers and students. She serves as a liaison to the central processing division of the university to set standards for the cataloging and processing of materials. It is also her responsibility to administer the media center budget for the elementary and high school divisions and the school's participation in government funds that are available.

The writer maintains and operates the school's closed-circuit television system within the building. Using a crew of fourth and fifth graders, she produces a live television show to start each school day. Arrangements are also made for the selection and broadcast of educational programming throughout the school day.

As department chair, the media specialist develops and maintains, through the media center handbook, various policies that determine the day-to-day activities, and assures consistency of services at the school's four media centers. Duties also include working with other media center and computer staff members to plan and develop the use of technology within the media centers. She serves as a liaison to various library departments within the university, and works with them to establish policies for central purchasing, processing, and whenever possible, sharing materials and resources. The writer also works with two teachers to supervise the production of a yearbook for the elementary division. Additionally, she has planned and designed a new media and technology center that will soon be completed.

Chapter II: Study of the Problem

Problem Statement

While there has been a heavy emphasis on the use of technology in educating students, the organizational plan for the purchase, management, and placement of technology within the school was rather haphazard and unclear. There was no clear plan for the addition and placement of technology within the school, nor was there an on-going staff development program for training teachers in the use and integration of technology in the classroom.

Problem Description

The Director usually met with the computer specialist and media specialist to decide how technology funds would be spent. The purchase of technology was not always based on educational goals but on equal distribution throughout the grades. Teachers had very little involvement in planning for the purchase of technology. Additionally, only a small percentage of teachers integrated technology into their curriculum on a regular basis.

Teachers needed to become directly involved in the planning and management of technology within the school. Direct involvement would provide them with the ownership needed to use and integrate technology into the instructional program. A clear plan, developed and implemented by teachers, would provide the focus for establishing the "interactive classroom"; flexible, small group instruction, using a variety of technology and computer software to deliver personalized instruction.

Problem Documentation

Evidence to support the existence of this problem was documented through a teacher survey (see Appendix A), discussions with the Director of the elementary division, the computer specialist, interviews with various teachers and personal experience. A survey, developed in the manner of the Likert scale was administered with 35 of the 41 teachers responding. The survey revealed that half of the responding teachers believed they had an active role in the purchase and selection of technology for the school, while half did not. Out of 35 teachers, 22 believed they had an active role in the purchase and selection of technology for their classroom. Fifteen of the teachers surveyed believed that the school had a specific plan for purchasing technology. The survey also revealed that the majority of teachers believed there were no on-going staff development or in-service training programs available within the school to train them to use technology. There were 30 teachers that stated they needed more training in the use of computers and related technology. Additionally, 30 teachers stated they would be willing to attend staff development programs if they were available in the building. Of the 35 teachers surveyed, nine incorporated computer technology into their teaching on a regular basis.

Many conversations with faculty members during the past year have revealed their uncertainty regarding specific technology plans for the school. Discussions also revealed that because there was a computer teacher and media specialist working closely with the Director, they believed there was a definite plan for the purchase and management of technology. Additionally, several teachers believed that because new hardware was purchased each year, the purchases were the result of a

master plan. There was also a small portion of the faculty that had no interest in using or integrating technology into their teaching.

Last year, during three technology related meetings, between the elementary division Director, media specialist, and computer specialist, the need for a technology plan was discussed. A five year plan which was developed for the entire school expired in 1995. This plan had some provisions for the future of technology within the school but was not specific enough to provide direction or substance. The Director stated her frustration over the arbitrary manner in which computers were purchased and placed within the school. Additional frustrations were voiced regarding the constant need to upgrade or update equipment. There were no current long-range goals or objectives for the purchase, distribution, and use of technology. Lastly, not enough teachers were incorporating technology into their teaching; instead it was used mainly for drill and practice. As a result, many classroom teachers were not fulfilling the school's Coalition goal of creating the "interactive classroom."

Conversations with teachers at all grade levels revealed their frustrations regarding technology. Many teachers were not aware of ways to integrate technology into their teaching other than drill, practice or review. Problems with equipment and the logistics of placing computers within the classroom were also concerns. Insufficient electrical outlets with proper surge protection were problematic for the classroom teachers. Some felt that the computers and software they currently have did not meet their specific needs. However, a vast majority of the teachers believed they needed more skills in using computers and related technology.

Causative Analysis

Several factors have contributed to this problem. First, teachers lacked the knowledge and expertise needed to use computer hardware and software effectively in their classroom. Although they realized their limitations, there was little time during the school day to develop or improve their skills.

Another factor lies in the fact that the Director tends to consult those who have the most experience with technology, the computer specialist and the media specialist for decisions regarding the purchase and placement of technology in the school. While this tends to provide short term efficiency in the decision making process, teachers were left out of the process and their needs were not always met by the decisions that were made.

While the university provides free courses in computer technology to all faculty and staff, there is little or no opportunity to practice and apply what is learned in the course and the content is quickly forgotten. Often the course content is generic in nature and not aimed at the needs of the elementary classroom teacher. Again, there is very little opportunity during the school day for teachers to use the computer to practice what they have learned. Not all teachers have a home computer to practice and improve their skills after the school day.

In-service training has been offered on several occasions but not on a regular basis. Teachers in grades three, four and five were provided with a 12 week training program last year, aimed at using library technology (Valovich, 1995). Prior to that, the last in-service training program, directed specifically toward the use of computer technology was offered four years ago (Brennan, 1991). Since that time the teaching

staff has grown and changed. There were 11 new teachers and aides at the beginning of this school year. In-service training was also provided in the use of the Integrated Learning System but was met with resistance by teachers who felt they did not have the time, during the school day, to learn the ILS that is located in the computer lab. Teachers felt that the presentations provided by the vendor's in-service training did not correlate to their specific needs.

Another contributing factor was that computers were placed in the hands of students before teachers had the opportunity to master their use. The school does not provide a computer for teachers to use at home or at school. Conversations with a few of the more experienced teachers, who have been with the school since computers were introduced into the curriculum, reveal a slight resentment toward them. They believe that they were not given the time or the equipment to learn how to use the technology in the manner they are expected to use it.

Relationship of the Problem to the Literature

As the use of technology in school becomes more prevalent, while funding resources decline, school administrators realize the necessity for specific technology planning that provides accountability at all levels (Westbrook, 1993). School districts throughout the country find that school-based planning for the use of technology provides the mechanism required for integrating technology into the curriculum (Cradler, 1994) (Geiger, 1994) (Kinnaman, 1991). Durost (1994) and other school principals have found that developing a coordinated plan for the use of technology is a prerequisite for successful integration within the school. Additionally, successful planning must include all stakeholders: teachers, students, parents, community, and administrators. David

(1991) believes that technology has the potential to provide educational reform if there is shared decision making that provides a systematic plan for it's use. Whitaker and Moses (1994) also believe that a major factor in restructuring schools to provide quality education for the next century must include an on-going plan for the incorporation of technology in all facets of the school program from curriculum to management. Carter (1996) concludes that once a technology plan has been developed and approved, assessment is critical to monitor the process and sustain the direction of priorities that were established through the planning process.

Evidence to support this problem exists lies in the fact that while society has experienced sweeping changes through the use of technology, schools have been quite resistant in passing these changes on to students (David, 1991). Kinnaman (1991) concurs but also believes that if we do not reform education, we will be unable to prepare students for a rapidly changing society.

Westbrook (1993) maintains that changes created by technology have created problems that must be resolved through educational planning. These problems include: (a) retraining existing teachers to use technology, (b) integrating technology into the curriculum, and (c) obtaining sufficient resources to purchase, maintain, and continually update technology. Additionally, Farrell and Gring (1993) believe that unless teachers and administrators strategically plan for the incorporation of technology in schools, the use of technology will continue to be inconsistent and disjointed, with little chance of providing the change that is desperately needed in education. Further evidence to support a need for technology planning is evidenced by the increased

demands placed upon school budgets to provide for additional technology in the form of hardware, software, and telecommunications (Kivell, 1995). Administrators are hard pressed to find the funds needed to purchase and maintain sufficient amounts of computer hardware to meet the requests of students and teachers. While computers can replace the need for some educational items such as textbooks and certain consumable items, they do not come close to the cost of computer hardware.

The literature reveals several causes to these problems. Schools and school districts are reluctant to make changes in the way students are educated and have created a resistance to accepting technology as a means to education reform. Kinnaman (1991) states "although technology is a primary cause of the current crisis in education, it can also be a key ingredient in its solution" (p.21). Unfortunately not all administrators see technology as they key to education reform.

When adding technology to school programs, many administrators tend to provide identical resources for each classroom creating an equality that does not meet the needs of all classrooms and which limits the development of those teachers who are eager technology users (Dyrli & Kinnaman, 1994). Dyrli and Kinnaman (1994) also believe that teachers have not made the use of technology in the classroom a priority, therefore administrators have taken a haphazard approach to its inclusion in the instructional program. Many schools do not have a technology coordinator or a technology planning team to direct and assist in creating a viable plan (Durost, 1994) (Dyrli & Kinnaman, 1994).

In searching for evidence of this problem in the literature the following topical areas were used: (a) Educational Planning, (b) Educational Technology, and (c) Strategic Planning.

The problems identified in this work setting relate directly to those cited in the literature. There was no specific plan for the purchase and maintenance of technology, nor was there an ongoing program for staff development. There were increased demands for additional computer hardware, software, and telecommunication resources, however, the budget was not adequate to meet all of the demands. Past purchasing trends leaned more toward providing equal resources for all classrooms rather than meeting the educational needs and objectives of each teacher. Finally there was no one to coordinate or initiate the planning process.

Chapter III: Anticipated Outcomes and Evaluation Instruments

Goals and Expectations

The goals of this practicum were to provide this school with the structure for ongoing planning that focuses on existing and emerging technologies and to provide continuous staff development programs for the successful integration of technology in the classroom.

Expected Outcomes

The following outcomes were projected for this practicum:

1. As a result of this practicum teachers and staff will become more involved in planning for technology and its use by participating in activities that are directly related to the use of technology in school.

2. Out of 41 teachers, weekly plan books will reveal that 20 will integrate technology into their teaching on a daily basis through the use of word processing, desktop publishing, multimedia, CD-ROM, and video laser disc.

3. At least 25 of 41 teachers and administrators will exhibit less frustration and have a more positive attitude toward technology when surveyed at the end of the practicum implementation.

4. There will be a calendar of on-going staff development programs to meet the needs and abilities of all teachers and staff.

Measurement of Outcomes

A pre-implementation survey (see Appendix A) was written and administered to all faculty and staff to determine their attitudes and beliefs regarding the use of technology in the school. A written post implementation survey (see Appendix B) was administered at the end of the implementation to determine if a greater number of teachers believed they were more involved in the technology planning process, their

attitude toward the technology training sessions that were provided, and if the entire planning process assisted them in using more technology in their day-to-day teaching.

Standard of achievement was based on the following criteria. First, teachers were encouraged to fulfill the goal of creating and implementing the interactive classroom as part of their normal teaching strategy. They were asked to track their use of technology on a day-to-day basis through the use of a page insert (see Appendix C) in their daily plan book. This form allowed teachers to not only document the subject areas in which they used technology but also the type of technology that was used: word processing, desktop publishing, multimedia, CD-ROM, or video laser disc.

Additionally, teachers were provided with opportunities to participate in technology planning as well as staff development programs aimed at increasing their skills in the use of technology. Through a survey form (see Appendix D) teachers chose to participate in one of three committees: Technology Planning, Staff Development or Software Evaluation. Since the Technology Planning Committee was the foundation for developing a course of action and making recommendations to the administration, alternates were also chosen for this committee to insure equal representation from all grades and teaching areas at every meeting. Representation and participation within committee groups aimed at decreasing the level of frustration and negative attitudes toward technology among teachers and staff.

In order to determine the kind of technology training that was needed, and the level of skills among the faculty and staff, a Staff Development survey (see Appendix E) was administered. Individuals

were asked to check the skills they would like to improve and offer suggestions for specific training sessions. Members of the Staff Development Committee served to administer and collect the surveys from their particular grade or teaching area. Because of their involvement there was a 100% return.
Based on the survey returns the committee was able to determine the areas most critical for training.

During the technology training sessions participants were provided with handouts that described the skill or technique that was taught. The instructor used a large monitor television with a signal converter to demonstrate the skill being taught. The image on the instructor's computer screen was available for each participant to view as they worked at their own computer. Emphasis was placed on hands-on learning so that participants could practice what was demonstrated and share the experience of actually performing the skill or technique. Simple projects that were directly related to the needs of the classroom teacher were created. Teachers mastered the skill by completing the project.

Another tool used by the Technology Planning Committee was the Technology Audit Form (see Appendix F). The committee felt that in order to determine the school's technology needs, a complete audit of existing technology should be completed. This assisted in the weeding out of old, outdated equipment and also determined the best placement of technology within the building. Some items that were used infrequently by one area were then placed in other areas that could make better use of the item.

The Software Evaluation Committee also used two evaluation forms in order to determine the educational value of the software programs that were evaluated. The first form, developed by the writer (Valovich, 1995), and adapted for use by the Committee, was the CD-ROM Evaluation Form (see Appendix G). This allowed for the systematic evaluation of individual CD-ROM programs based on various criteria that are important in considering the educational value of a particular program. The final form for software evaluation (see Appendix H) was developed by the committee to simplify the process of evaluating computer software. Each evaluator used five instructional qualities for evaluation. All of these forms were then incorporated into a loose-leaf notebook for future reference to anyone wishing to purchase software for their classroom. Teachers were requested by the committee to consult the reviews prior to ordering new software to insure that the program(s) ordered were of educational value and would meet the needs of the curriculum.

A final assessment was made at the end of each committee meeting. The writer and the Technology Coordinator compared notes from the meetings which were then recorded into a log book. These summaries, along with the printed agendas distributed at each meeting, provided a record of what took place at each meeting and allowed the writer to make assessments regarding the accomplishments of each committee. These were then compiled into a final report that was submitted to the Director at the end of the school year.

Chapter IV: Solution Strategy

While there has been a heavy emphasis on the use of technology in educating students, the current organizational plan for the purchase, management, and placement of technology within the school was rather haphazard and unclear. There was no clear plan for the addition and placement of technology within the school, nor was there an on-going staff development program for training teachers in the use and integration of technology in the classroom.

Discussion

Developing a clear, systematic plan that involves all stakeholders was the overwhelming consensus among educators in the solution of many problems relating to technology in schools. Picciano (1994) believes that many schools are struggling with technology inclusion because they lack careful planning regarding it's use in the classroom and in other areas of the school. Several school districts (Kivell, 1995; Moursand, 1988; National Center for Technology Planning, 1995) in Texas, Connecticut, and Wisconsin, found that planning provided a congruous strategy that enabled schools to make insightful decisions regarding monetary investments, equity, and education reform. Haman, Manon, and Sawyer (1993) assert that even private schools and small school districts with minimal technology use must develop a technology plan.

The literature unequivocally supports the creation of a technology planning committee. Barron (1994) advocates a district or building-level team that represents all sectors of the school community. Additionally, he recommends the use of a plan developed by Lumley and Bailey (1993)

because it places the library media center as the nucleus of the technology program.

Lumley and Bailey (1993) charge the planning committee with the task of developing a philosophy and mission statement and the creation of specific goals. Farrell and Gring (1993) conclude that strategic planning is the best method because it necessitates gathering and analyzing data to scan the current environmental situation prior to establishing goals. The opportunity to look at the institution in relation to its surrounding community allows decision makers to act intelligently and effectively. Westbrook (1993) concurs because environmental scanning "...is the barometer for shift sensing inside the organizational envelope which necessitates readjustments in the plan and provides strategic planning its effectiveness." (p. 39)

Burnett and McNally (1994) understand that in order for technology planning to be effective, provisions must be made for ongoing education and training of media specialists and teachers. Quite often students have been given the priority in training and use of technology while teachers are left to their own devices. A national survey (Siegel, 1995) indicated that while schools are expected to integrate technology, a low priority is given to training teachers how to use it effectively. Administrators prefer to allocate technology funds toward the purchase of hardware and software instead of training. Additionally, Tally and Gimaldi (1995) claim that most staff development programs that do exist are not apropos to the way teachers learn.

Lumley and Bailey (1993) recommend that the technology planning committee address long-range plans in the areas of budgeting, facilities, and locations, staff development, leadership, and the library media

center. The committee should establish a realistic budget that will provide for new equipment as well as upgrades, maintenance and repair. Additionally, many older school buildings must be "retrofitted" to accommodate electrical and space requirements for a variety of technology to be used throughout the building. The committee must also identify those who will provide leadership toward the attainment of established goals and provide the staff development programs necessary to meet the needs of all teachers for the successful integration of technology into their classroom. Finally, the library media center must serve as the model for technology use within the school taking advantage of a variety of applications that can be used by students as well as teachers. This includes telecommunications, and on-line services, multimedia authoring programs, CD-ROM, scanners, video lasers, and distance learning opportunities.

Farrell and Gring (1993) suggest addressing hardware and software procedures for evaluation, selection, and purchase in addition to repair and replacement of hardware. They believe that procedures should be established for the review of a variety of software programs prior to making purchasing decisions. Additional staff training should also be made available in the use of software programs that are selected for purchase. Preview and established selection procedures are necessary to insure the most effective use of software funds and to avoid unnecessary duplications in purchase. Additionally, such committees can often negotiate with vendors for discounts and network or site licenses.

Kinnaman (1991) and Picciano (1994) recommend establishing a timeline to assure action is taken and to provide tangible proof that goals are in sight. Committee members as well as stakeholders must be able

to see progress in what they are doing within a reasonable amount of time. Establishing a calendar and timeline keeps everyone on track and allows all participants to see how far they have come while recognizing the goals that have been set are achievable.

Technology planners like Cradler (1994), Dyrli and Kinnaman (1994), Farrell and Gring (1993), Kinnaman (1991), Carter (1996), and Lumley and Bailey (1993), advocate the need for assessment to provide the opportunity to evaluate the success or failure of the planning process, and to make adjustments and modifications when needed. Formative evaluation throughout each phase of the planning process provides valuable information to technology leaders regarding the effectiveness of the established procedures. Changes can be made along the way to improve the process that will help to insure the overall success of the planning committee. At the end of the school year all data should be collected and given to administrators who have not had a direct influence in the technology planning process so they may provide a summative evaluation of the entire technology planning program. Their unbiased suggestions can provide valuable input to the planning process for the following school year.

Several ideas were generated as a result of reviewing the literature. Creating a Technology Planning Committee composed of teachers, administrators, a parent representative and perhaps a representative from the university was necessary. A chairperson or co-chair should be selected to coordinate the planning process and provide the committee members with information to act effectively.

In addition to the Technology Planning Committee, subcommittees can be formed for the evaluation and selection of hardware and software,

staff development programs and other relevant areas of need. These subcommittees would also allow a greater number of teachers to be involved in the planning for technology and would divide the work-load for faster results.

Environmental scanning would be used to provide all participants with information that would enable them to make effective decisions. Part of the environmental scanning should involve an audit of all technology currently in place within the school. An audit will allow the committee members to assess how technology is currently being used and provide recommendations for possible relocation of equipment that would offer more effective use elsewhere.

Additionally, provisions must be made for continual staff development programs for all school personnel that is geared toward a variety of needs and ability levels. Simply providing the hardware is not enough to insure it's use within the school program. Proper training in it's use is necessary so that it is used effectively and to it's greatest capacity. Recognizing that teachers and staff are at varying levels of abilities, provisions must be made to accommodate all levels and to provide for professional growth.

Finally, the Technology Planning Committee must address critical issues that affect the use of technology within the school. These include retrofitting an aging building to accommodate the new technologies, computer access for each teacher, programs for software and hardware selection, maintenance, and replacement, networking, and distance learning.

Concurrently the media center would serve as a model for the latest technology, offering a variety of programs and services to teachers and

students that will meet their teaching and learning needs. The media specialist and computer teacher will act as role models in the use of technology and offer training, demonstrations, and suggestions that will enable teachers to make greater and more frequent use of technology in their classroom.

Description of Selected Solution

With the support of school administrators, and as a concerted effort to integrate technology into all aspects of the school, the writer developed the following solution. First, a Technology Planning Committee was established with representatives from all sectors of the school population. Additional subcommittees were formed to involve a greater number of teachers in the planning process. They included committees for staff development and software evaluation. Involving a greater number of teachers was important in providing them with a sense of ownership and improving their attitudes toward the use of technology within their classroom and within the school, thereby eliminating some of the frustrations and negative attitudes that existed. The subcommittees also divided the work load so that more could be accomplished during the school year.

The writer provided the Technology Planning Committee with a variety of information necessary for environmental scanning and assisted in the facilitation of an internal technology audit. Information included articles and data on networking, multimedia, whatever data could be found on technology use in other private schools in the area, and the latest data on existing technology within the building.

A few weeks prior to the implementation the school hired a full-time person as Technology Coordinator. This unexpected addition to the staff

served as an additional resource and assistant in the planning processing. In turn, the information distributed for environmental scanning was of great value to the Technology Coordinator in familiarizing him with existing technology available in the building and enabled him to take over the completion of the technology audit. The audit assisted in the creation of an appropriate mission statement that was in alignment with the philosophy and mission of the school, and the creation of long-range technology goals. Working with the Technology Coordinator, the writer also kept all stakeholders informed of the progress of various committees and their accomplishments through a variety of newsletters and presentations at appropriate meetings.

Second, the writer also formed the Staff Development Committee to develop a calendar of ongoing staff development programs using building and university resources, that provided teachers, administrators, and staff with the skills they needed for the effective use of technology. Discussions were held to determine the most appropriate and convenient times for technology training. Other issues such as providing certification credits for training hours and specific types of training were also addressed. Attempts were also made to develop a basic skills test for new teachers and a scope and sequence of technology skills for the training of current staff members. This would provide teachers with an inventory of skills needed for successfully establishing the interactive classroom as a means to develop personalized and small group instruction through the use of technology.

These actions were necessary to fulfill the mission of this school and for the integration of technology in all aspects of the school's operation.

Changes are needed in the way students are taught that will allow them to be successful in a technology rich society.

Report of Action Taken

First, the media specialist played a leadership role in creating a model for technology use within the school. As suggested by Lumley and Bailey (1995), the media center provided the latest technology and resources for students and teachers and demonstrated their effective use within the media center and the classroom. Efforts were made to demonstrate the use of CD-ROMs, electronic encyclopedias, multimedia, telecommunications, and video laser disc. When teachers began to see the possibilities, they wanted the technology to use in their own classroom.

Early in the school year a survey was taken to determine the attitudes and beliefs held by teachers and staff regarding technology. A discussion at a faculty meeting about forming a Technology Planning Committee met with enthusiastic responses from teachers and administrators. At the next faculty meeting teachers were asked to indicate their committee preference through a survey (see Appendix D). Since the Technology Planning Committee was the most crucial in the successful implementation of this plan, alternate members were selected to insure complete representation at each meeting. All committees met at least once a month, however, by the end of the school year the Technology Committee met every other week in order to complete a final report that was submitted to the administration. The report contained a review of all of the committees' accomplishments throughout the school year and provided a mission statement, a list of long-range, and short

range goals, and recommendations for the continuation of all committees in the coming years.

Additional committees were formed, one for staff development and another to evaluate software and CD-ROM programs. In addition the Technology Coordinator worked with three high school students and developed a web site for teachers that would lead them to a variety of educational areas for teaching ideas and resources. Training was developed to assist teachers in the use of this web site.

The first task of the Technology Planning Committee was to discuss their purpose and to develop a mission statement that would serve as a guideline for our decisions and our goals. Handouts were distributed at meetings that described emerging technologies and discussions were held regarding their implications for use within the school. Each member was asked to discuss with their team and submit a list of the types of activities they wanted to accomplish using technology in their classroom. The Technology Coordinator offered advice on equipment and programs they would need in order to accomplish their list of activities. Further discussions were held to determine their expectations for the use of technology in the future. All of these were then assembled into lists that were eventually turned into short-term and long-term goals.

The Staff Development Committee quickly agreed that more training should be available to teachers and staff at times that would be more convenient to their needs. The committee administered a survey to determine the level and types of training that would be most beneficial, and a calendar of training dates was established. This was more difficult than originally anticipated because most of the teacher workdays, the preferred time for training, were already scheduled with meetings or

programs. Through brainstorming the committee was able to create training times that were suitable to most. Some were scheduled early in the morning before classes began, some were scheduled during teacher planning times, and a mini computer camp for teachers was arranged the first week after school ended. Incentives for teachers to attend were provided by allowing those in attendance to take home a computer for the rest of the summer break.

The final calendar included six formal training sessions. The topics included telecommunications, Macintosh basics, Windows basics, Database and Spreadsheet. Small, informal training was also offered in the use of specific CD-ROM programs such as Print Shop Deluxe, Living Books, I Can Read Club, World Book Multimedia Encyclopedia, Primary Search, a database of magazine articles, and video laser disks used in the first and third grade science curriculum. Most of the informal sessions were held during the teacher planning time and after school.

To avoid the problem of a full calendar for teacher work days next year, in early June the committee submitted a request to the administration for dates and times to be reserved for technology training during the next school year. Hopefully submitting these dates before the school calendar is set will yield a greater number of teacher work days available for in-service training.

Other issues such as providing certification credits for training hours and specific types of training were also addressed. Committee members were of the opinion that since the school was associated with a university, course credit for training could be offered in the building with a focus on the use of technology in teaching. Two committee members

volunteered to speak to the Headmaster and appropriate officials at the university to pursue this possibility.

Attempts were also made to develop a basic skills test for new teachers and a scope and sequence of technology skills for the training of current staff members. The committee, however, felt that these were not a priority at this time and tabled the completion of those items for the following school year. The focus at this time should be to provide everyone with the most basic computer skills before setting minimum standards. When the scope and sequence is completed, it will provide teachers with an inventory of skills they will need in order to be successful in establishing the interactive classroom as a means to developing personalized and small group instruction through the use of technology.

Upon the advice of Farrell and Gring (1993), the Software Evaluation Committee met to set standards for evaluating software and CD-ROMs and adopted two evaluation forms to suit their needs. Committee members scanned preview disks and publishers' catalogs to determine which programs would be ordered for preview during the year. Twenty-five programs were selected and ordered by the media specialist who coordinated the ordering and return process. The committee met once a month, however, when preview programs arrived they were assigned by the media specialist to the committee member at the most appropriate grade level for the program. Sometimes the program was reviewed by more than one grade level. This allowed the teachers to actually use the program in their classroom and to obtain student reaction to the program as well as the teacher's reaction. Evaluation forms had to be completed for each piece of software evaluated and by each person doing

the evaluation. This allowed different perspectives and provided a well-rounded evaluation of the program. Discussion regarding the previewed programs was held at the monthly meetings to discuss differences in opinions and reviews. A general consensus of acceptance or rejection was given for each program.

All of the evaluation forms were assembled into a loose-leaf notebook which was organized by study areas: math, social studies, science, etc. This book is kept in the media center and is available to teachers wishing to purchase software for their classroom. They are strongly encouraged to consult the reviews prior to purchasing a program. If a program they are interested in purchasing has not been evaluated, it is added to the list of potential previews for the following school year.

Eventually all of the program evaluations will be entered into a database. In turn, the database will be available for teachers at the internet web site that was established. Teachers can then review them at their convenience. This may one day serve as a model for the university whose technology planning group is interested in developing a resource of this nature for the entire campus community.

An attempt was made to bring in representatives from various software producers to demonstrate their programs. Although two separate demonstrations were arranged, only one took place due to some scheduling complications and other unforeseen events. The demonstration was very successful and included hands-on opportunities for the teachers. Since a representative was present, questions could be immediately answered and teachers could get a sense of the full depth of the program. Additional program demonstrations will be planned in the future.

Throughout the eight month implementation process, the media specialist, technology coordinator, and computer teacher worked closely in preparing agendas and other information for meetings, developing requested training, producing newsletters and handouts, and keeping in touch with the needs of classroom teachers and their use of technology. They established a calendar of meeting dates for all of the committee members and distributed copies to everyone so that members had advance notice of when their committee would meet each month.

In addition to the monthly committee meeting, the media specialist also met with each grade area at the beginning of the month to discuss their use of technology and other media as it related to their curriculum. The computer teacher assisted them with the use of telecommunications and on-line programs available to them through Scholastic and America On-line. Two electronic field trips were also scheduled for the fourth and fifth grades. This provided teachers the opportunity to learn more about telecommunications and allowed them to participate in on-line chat rooms that were curriculum related. Student enthusiasm over the electronic field trips and on-line chats also served to motivate the teachers to learn more about the technology.

Regional and national technology conferences were attended by the media specialist, technology coordinator and computer teacher. Teachers and staff were also encouraged to attend with the administration providing release-time and some monetary reimbursement for expenses. Attendees were encouraged to share their experiences during faculty meetings.

With an increased awareness in technology, particularly telecommunications, the media specialist, technology coordinator, and

computer teacher worked together to develop a tentative policy and code of ethics for the use of computers and telecommunication, for both teachers and students. This draft will be presented to the Technology Planning Committee for their approval and revisions before presentation to the administration for final approval. There was not enough time during the school year to complete this task.

Assessment of the planning that has taken place was another important component for the success of the practicum. The writer concurs with Carter (1996) that periodic assessment must be made in order to monitor the progress that has been made and provide direction for the priorities that were established by the committees. Assessment must be continuous and by different individuals in order to gain a global perspective. Formative assessments were made by the writer and Technology Coordinator at the end of each committee meeting by comparing notes and reviewing the agenda items. This information was compiled into a log book. The final report was a summary of the events described in the log book. The Director was asked to make a summative evaluation of the technology planning process and offer suggestions for future improvements or modifications.

During the midpoint of the implementation, construction began on a new Media and Technology Center that was planned and designed by the writer. As the construction progressed on the 5,000 square foot addition, the Technology Planning Committee was informed of the technology capabilities it would provide to them and their students. One special area includes a large screen viewing area connected via video projector to a master computer, video laser, and television to be used for multimedia instruction. Committee members had the opportunity to provide input

regarding ways in which they would like to make use of the new technology. This led to discussions about expanding the media resources through a school-wide network. Eventually this was turned into a long-range goal that was presented to the administration. The new Media & Technology Center will open in the Fall and continue to set the standard for technology use within the school.

Chapter V: Results

Results

With great emphasis placed on the use of technology in educating students, the organizational plan for the systematic purchase, management, and placement of technology within the school was rather erratic and unclear. No clear plan for the addition and placement of technology within the school existed, and there were no on-going plans for training teachers in the use and integration of technology in the classroom. The writer's goals were to provide the school with the structure for diligent planning that focused on existing and emerging technologies and to provide continuous staff development programs for the successful integration of technology in the classroom.

1. As a result of this practicum, teachers and staff will become more involved in planning for technology and its use by participating in activities that are directly related to the use of technology in school.

This outcome was met.

Out of 41 teachers and staff, 28 participated in the technology planning process by serving on one of the three established committees. Their involvement in the committees was met with enthusiasm and the general response regarding the benefits of the committees was positive. Many of the teachers were eager to play a more active role and to voice their opinion about matters which affected their classroom and teaching. The writer maintained a journal to record the events and discussions that occurred at each of the committee meetings. This enabled the committee members to quickly review previous agendas and determine

issues to be discussed and acted upon. A sample journal page is provided in Appendix I.

Teachers also had several opportunities during the school year to participate in training and improvement of specific computer skills or informal training in the use of a specific program or CD-ROM. At the end of the school year all teachers were given the opportunity to take a computer home for the summer months in order to practice and improve their technology skills.

2. Out of 41 teachers, weekly plan books will reveal that 20 teachers will integrate technology into their teaching on a daily basis through the use of word processing, desktop publishing, multimedia, CD-ROM, and video laser disc.

This outcome was met.

The post implementation survey (see Figure 3) reveals that 32 of the 35 teachers surveyed used technology in their teaching on a daily basis. This number was much greater than originally anticipated. Perhaps this was due to the emphasis that was placed on technology this school year. The writer also believes that the weekly listing in the plan book of the technology used by the teacher, training sessions, and monthly meetings with the media specialist were beneficial, increasing their awareness of the technology available for them to use. A summary (see Figure 1) of all of the weekly plan book inserts (see Appendix C) shows that various forms of technology were integrated in nearly all areas of the curriculum and across all grade levels..

Figure 1

TECHNOLOGY INTEGRATION SUMMARY

	WP	*DP*	*CD*	*MM*	*VL*
READING	K, 1, 2, 3, 4, 5	Gr. 1, 2, 4, 5	PK, K, 1, 2	Gr. 5	Gr. 3
SOCIAL ST.	Gr. 2, 3, 4, 5	Gr. 4, 5	PK, K, 3, 4, 5	Gr. 5	Gr. 1, 4, 5
SCIENCE	Gr. 2, 3, 4, 5	Gr. 5	PK, K, 2, 3, 4, 5		
MATH		Gr. 3, 4, 5	K, 1, 3, 4, 5	Gr. 5	Gr. 5
ART		Gr. 4, 5	Gr. 2, 4, 5		
STUDY SKLS	Gr. 4, 5		Gr. 3, 4, 5		
MUSIC			Gr. 3, 4, 5		Gr. 1, 2, 3

KEY:
WP=Word processing DP=Desktop publishing CD=CD-ROM
MM=Multimedia VL=Video laser

3. At least 25 of 41 teachers and administrators will exhibit less frustration and have a more positive attitude toward technology when surveyed at the end of the practicum implementation.

This outcome was met.

The post implementation survey (see Figure 3) revealed that 33 of the 35 teachers, staff, and administrators experienced less frustration

regarding technology as compared to the beginning of the school year. The involvement in committees provided them the opportunity to vent their frustrations and to view a more global approach to the problems associated with technology and its use. There were also more candid discussions regarding the technology and expectations for improvements in the placement of technology within the building. Teachers felt that through committee recommendations, the purchase and placement of equipment would be more equitable.

4. There will be a calendar of on-going staff development programs to meet the needs and abilities of all teachers and staff.

This outcome was met.

Published notifications of all training sessions were distributed to all faculty and staff. The materials and activities used in the training sessions were planned and implemented by the Technology Coordinator with the Media Specialist and Computer teacher assisting as needed. In the pre-implementation survey (see Figure 2) 14 people believed there were regular training programs available. The only available training at that time was training offered through the university. The post implementation survey (see Figure 3) increased that number to 30. Teachers were now aware that specially designed training was available for them within the building and suited to their specific needs and interests. The training sessions that were provided were well attended. Even the "computer camp" during the first week of summer vacation had 16 participants who took advantage of a free computer to use during the summer.

The pre and post implementation surveys focused on five specific items:

1. I play an active role in the purchase and selection of technology for the school.

2. I play an active role in the purchase and selection of technology for my class.

3. The school has developed a specific Technology Plan.

4. Staff development programs in the use of technology are provided on a regular basis.

5. I incorporate technology into my teaching on a regular basis.

Three additional questions were asked in the post survey:

6. The Technology Committee has been useful.

7. I am less frustrated regarding technology than I was at the beginning of the school year.

8. The training sessions I have attended have provided me with more confidence in using technology.

The following figures display the result of both surveys.

Figure 2

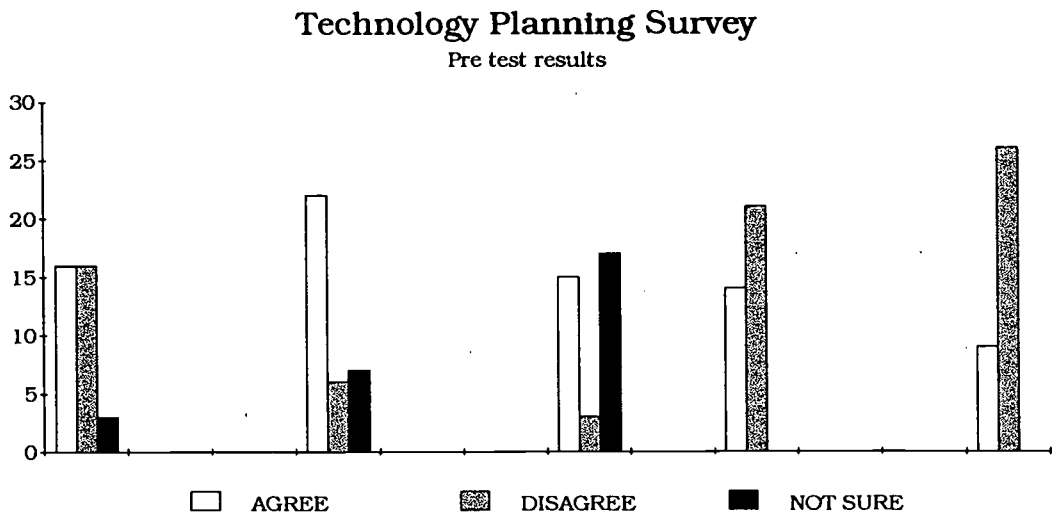
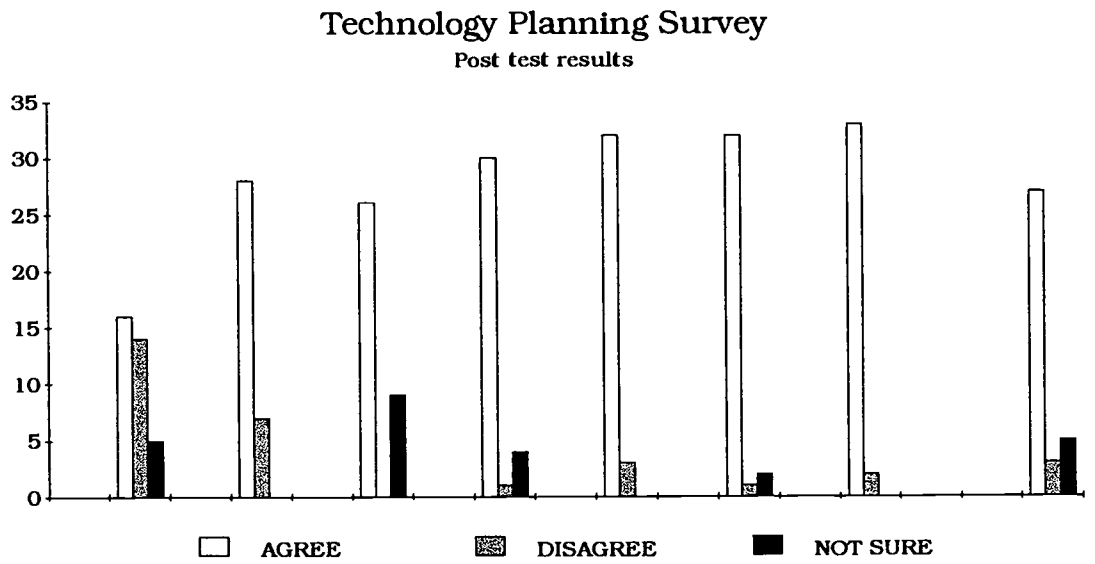


Figure 3



Discussion

The results of this practicum far exceeded the writer's expectations. The results send a strong message that the actions taken were not only effective but greatly needed. Teachers and staff were ready to be included in technology planning and were eager to become a part of the decision making process. After all, computers had been used by students in the school since 1982. Teachers who have been with the school since that time were used to their presence and accepted them as part of the computer laboratory, but in the last five years more and more computers had been added to the classrooms as well. When multimedia computers made their appearance in the classroom last year, many teachers were anxious to put them to use in their teaching. Those who held back using the computers realized that including them in their daily teaching was inevitable and they needed to catch up with the other teachers who were already using them.

The committees provided teachers a way in which they could involve themselves in technology planning, vent some of their frustrations, and contribute their ideas and technology needs in a meaningful way. Many felt that as a group, more could be accomplished than as an individual requesting additional computer technology for the classroom. They also wanted to have a more equitable system for the purchase and placement of technology in the school. Having a specified plan would allow everyone to see where they fit into the overall scheme and would provide accountability at all levels as suggested by Westbrook (1993).

Working in committee groups and presenting a united effort made it possible for the faculty to gain approval for creating a school-wide computer network through the expansion of the existing media center network. By showing that all of the committee members, as representatives for their grade areas supported this network, the administration took a much closer look at the proposal and granted it's approval. Previous discussions and requests for this network between administrators, the computer teacher and media specialist had been rejected. Now each classroom will have at least one computer connected to the network that will provide the on-line catalog, word processing, desktop publishing, various research databases, and an electronic encyclopedia.

The timing was right for developing and implementing this plan. Teachers and staff agreed they needed more technology training but were not satisfied with the courses and training offered at the university because they did not apply directly to what was done in the classroom, and the times classes were offered were not convenient or consistent with the school schedule. Teachers were willing to learn but due to heavy

workloads and busy schedules, finding the time was a challenge. Several teachers were also working on advanced degrees and had little time in which to learn computer skills.

By the middle of the implementation period it was obvious that there was much more to do than could be covered in the scope of one school year. Each committee began to see the importance of continuing their work. The Technology Planning Committee would need to appraise the school's needs on a yearly basis and determine the areas of greatest importance while refining and adjusting the school's technology goals and expectations. The Staff Development Committee needed to continue work on developing a skills assessment for teachers and staff as well as an assessment for new teachers. Additionally, continuous training in the use of old and new technology was vital to the successful integration of technology into the curriculum. With the rate at which new and more sophisticated programs are being developed, the Software Evaluation Committee would continue to have the important task of evaluating and determining which of the programs are appropriate for purchase.

Recommendations

The best recommendation that can be offered is to continue the technology planning process that was set in motion through this practicum. Technology needs are constantly changing and new technology is always in sight. Without a written plan that provides short- term and long- term goals those needs can never be adequately met. Additionally, technology is perhaps the most costly part of the school budget. There never seems to be enough funding to accomplish everything that needs to be done and to satisfy everyone's needs. Using a Technology Plan and involving as many teachers as possible in the

planning process provides everyone with a sense of ownership and a direction for the future. It also provides strong incentives to develop skills in the use of technology and integrate them into the classroom.

Another recommendation is to delegate responsibilities, especially among the members of the Technology Planning Committee. It is virtually impossible for any one person to take on the task of organizing the committees, preparing agendas and other information that must be disseminated, and developing newsletters for faculty and parents. By further dividing the Technology Committee into subgroups of two or three, each could take on one of the many tasks that must be completed in order to be successful.

A final suggestion is to rotate faculty and staff among the committees with members spending no more than two consecutive years on any one committee. This will give teachers a new perspective and provide the stimulation of different ideas from different people. It may also help to alleviate a feeling or sense of indifference that comes with doing the same thing year after year. Additionally, arranging for speakers or demonstrations from outside the school can generate some excitement and be the springboard for new ideas.

Dissemination

Initially this plan will be shared with other divisions of the school at both campuses. Upon approval from other Directors and faculty the process described here will be implemented at the other campuses during the next school year. The writer plans to work closely with the Media Specialists and Technology Coordinator to assist them in formulating the technology planning process. Since the Technology Coordinator is shared by both campuses and has participated in the

planning process at the Lower Division, he can provide valuable assistance to the other schools.

Once our entire school becomes involved in technology planning, the writer will make the solution used in this practicum available to other private schools. This can be done on-line or through presentations at conferences such as Association of Independent Schools, or Florida Council of Independent Schools. Additionally, articles regarding this practicum will be submitted to their publications.

The university is also in the process of devising a technology planning process. There has been mention of a shared database of software evaluations. Perhaps some of the ideas presented in this practicum can be used by other departments within the university where technology integration is essential.

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APPENDIX A

TEACHER SURVEY

SEPTEMBER 1995

TEACHER SURVEY

SEPTEMBER

1995

Please circle the number that corresponds to your opinion regarding the following questions. Your opinions are important and your answers are anonymous. Thank you!

1-STRONGLY AGREE	2-AGREE	3-NOT SURE	4- DISAGREE	5- STRONGLY DISAGREE

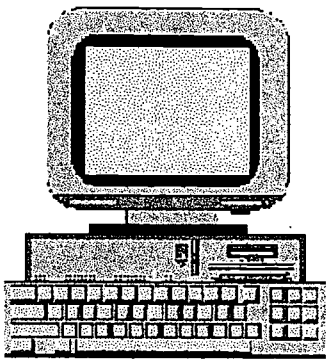
1. I play an active role in the purchase and selection of technology for the school.	1	2	3	4	5
2. I play an active role in the purchase and selection of technology for my classroom.	1	2	3	4	5
3. The school has a specific plan for the purchase and selection of technology.	1	2	3	4	5
4. The most effective use of computers in my classroom is:					
drill & practice	1	2	3	4	5
research	1	2	3	4	5
word processing	1	2	3	4	5
desktop publishing	1	2	3	4	5
games	1	2	3	4	5
5. Staff development and in-service training programs, in the use of technology, are regularly provided.	1	2	3	4	5

6. I incorporate computer technology into my teaching on a daily basis.	1	2	3	4	5
7. I have a home computer that I regularly use for school-related work.	1	2	3	4	5
8. A Technology Committee, with representatives from all grades and special areas would be useful in planning and purchasing technology for this school.	1	2	3	4	5
9. If staff development programs were available in this building, to assist me in learning more about technology, I would be willing to attend.	1	2	3	4	5
10. I feel that I need more training in use of computers and related technology.	1	2	3	4	5

APPENDIX B

TECHNOLOGY PLANNING SURVEY

JUNE 1996



TECHNOLOGY PLANNING

SURVEY

JUNE 1996

Thank you for participating in our technology planning process. Your assistance as a committee member, or participation in our technology training sessions have provided an important contribution in making our school the best it can be, and providing our students with the technology skills they need for success. Your help is requested in evaluating the success of this project.

Please circle the number that corresponds to your opinion regarding the following questions. Your opinions are important and your answers are anonymous. Once again, thank you!

1-STRONGLY AGREE	2-AGREE	3-NOT SURE	4-DISAGREE	5-STRONGLY DISAGREE

1. I play and active role in the purchase and selection of technology for the school.	1	2	3	4	5
2. I play an active role in the purchase and selection of technology for my classroom.	1	2	3	4	5
3. The school has a specific Technology Plan that has been made available for all teachers and staff.	1	2	3	4	5

4. There is a calendar of on-going staff development programs for technology training.	1	2	3	4	5
5. Training is available in the use of computer software.	1	2	3	4	5
6. Efforts have been made to renovate my classroom area for the accommodation of computers and other related technology.	1	2	3	4	5
7. I incorporate computer technology into my teaching on a daily basis.	1	2	3	4	5
8. The Technology Committee has been useful in establishing goals and priorities for the use of technology in this school.	1	2	3	4	5
9. I am less frustrated and have a more positive attitude about using technology than I did at the beginning of this school year.	1	2	3	4	5
10. The training sessions I have attended have provided me with more confidence in my ability to effectively use technology in the classroom.	1	2	3	4	5

APPENDIX C

SAMPLE PAGE

TEACHER PLAN BOOK

SAMPLE PAGE

TEACHER PLAN BOOK

TECHNOLOGY INTEGRATION

Word Processing=WP Desktop Publishing=DP Multimedia=MM

CD-ROM=CD Video Laser=VL

	READING	SOCIAL STUDIES	SCIENCE	OTHER
MONDAY				
TUESDAY				
WEDNESDAY				
THURSDAY				
FRIDAY				

APPENDIX D

TECHNOLOGY PLANNING

COMMITTEE SURVEY

TECHNOLOGY PLANNING

SURVEY

Technology planning is necessary for the successful integration of technology in our school. Teachers must be at the heart of the planning process. If you are interested in serving on one of the committees listed below, please complete this form and return it to the media center as soon as possible.

NAME_____

I am interested in serving on the following committee:

1. Technology Planning Committee
   -This group will have the responsibility of creating technology goals for each grade and specialization area as well as for the school. They will meet once a month. The committee will consist of a representative and alternate from each grade and special, computer lab and media center..... _____

2. Software Evaluation Committee
   -This group will evaluate a wide variety of computer software and make recommendations for purchase. They will also assist in training other teachers in the use of software programs..... _____

3. Staff Development Committee
   -This group will establish an on-going calendar of training programs that will meet the needs and abilities of all teachers. They will work with school and university instructors to establish the curriculum needs for these training sessions..... _____

APPENDIX E

STAFF DEVELOPMENT SURVEY

STAFF DEVELOPMENT SURVEY

In order to determine the type of technology training that would be most useful to you, please complete the following survey and return to the media center at your earliest convenience.

NAME:_____

I feel that I need additional training in the following areas:

Basic computer skills:

___ manipulation of mouse

___ basic DOS commands

___ creating, accessing, and manipulating files

Windows applications:

___ setup ___ accessories

___ control panel ___paintbrush

___ file manager ___calendar

___ print manager ___cardfile

___ clipboard notepad

CD-ROM applications:

___ Living Books (installation and use)

___ Electronic encyclopedias

___ Reference tools

periodical databases

Children's Books in Print

SIRS Discoverer

electronic card catalog

Administrative applications:

___ databases ___ grade book

___ spreadsheets

___ word processing

Desktop publishing:

___ Print Shop

___ Clip art applications

___ animation

___ paintbrush

___ Pagemaker

Telecommunications:

___ University VAX system

___ America Online

___ Scholastic Online

___ e-mail

___ communications software

___ Internet / Word Wide Web

Multimedia applications:

___ authoring tools

___ hypercard and hyperstudio

___ Powerpoint (presentation software)

___ video laser disc and software applications

Instructional Hardware:

____scanner

____Presenter

____Data Projection panel

Suggestions:

_____

_____

_____

_____

APPENDIX F

TECHNOLOGY AUDIT FORM

TECHNOLOGY AUDIT FORM

Please complete one form for each piece of technology you have in your teaching area. Include items such as computers, printers, modems, disk drives, external CD-ROM's, monitors, keyboards, network components, joysticks, etc. Complete a form for ALL items, even if they do not work. Forms should be returned, no later than _____, to the Technology Audit basket located in the media center.

Item:_____ ID tag #_____

Manufacturer:_____ _____

Model:_____ Serial #_____

Location:_____

Condition: ___New ___Very Good ___Good ___Fair ___Poor

Equipment history (if known):

_____

_____

_____

_____

_____

APPENDIX G

CD-ROM EVALUATION FORM

CD-ROM Evaluation Form

Title_____Date_____

Recommended Gr. level_____

	Yes	No	N/A
1. Is there a manual or other documentation to provide instruction in the use of the program?			
2. Is the documentation thorough and easy to understand?			
3. Is the main screen uncluttered and easy to understand? Are directions available to explain what to do next?			
4. Are navigational commands simple and consistent?			
5. Are help screens easy to locate? Are help screen easy to use and understand?			
6. Can you exit the program from any screen?			
7. Can you retrace your steps? Get a search history?			
8. Are there at least two ways to search for information? (Browsing, fill-in, or Boolean)			
9. Are the search results easy to understand?			
10. Can you print the results? Can you choose exactly what you want to print?			
11. Can you save information to a disk? Is there an on-screen notebook?			
12. Is the information up-to-date and accurate?			
13. Are the intellectual level and content appropriate for the intended audience?			
14. Are the illustrations clear, in color, and meaningful to the text?			
15. If there is sound is it clear and appropriate to the content of the program?			
16. Will the CD-ROM support or enhance the curriculum? In more than one area?			
17. Does it stimulate imagination and curiosity?			
18. Is the price reasonable?			
19. Can it be used on a network?			
20. Recommended for purchase?			

Number of checks in the Yes column_____
Number of checks in the No column_____

APPENDIX H

SOFTWARE EVALUATION FORM

SOFTWARE EVALUATION FORM

Title:_____

Producer:_____

Subject:_____

Grade level:_____

Cost:_____ Computer system:_____

Special hardware requirements:

Program description:

EVALUATION:
Grade (0=lowest; 9=highest)

General characteristics: Instructional qualities:

Installation:_____ Content:_____

Ease of use:_____ Creativity:_____

Documentation:_____ Motivational:_____

Instructional Features:_____

Graphics/ Audio:_____

OVERALL RATING:_____

Recommended for purchase: _____Yes _____No

Reviewer's name:_____ Date:_____

APPENDIX I
SAMPLE
COMMITTEE JOURNAL

SOFTWARE DEVELOPMENT COMMITTEE
JOURNAL

DATE: January 25, 1996

ATTENDANCE:

A sample survey to determine the technology skills of staff members was distributed to committee members. After discussion and suggestions for revisions and additions the form was approved for distribution. Each member of the committee will be responsible for collecting a survey from each member of their grade team to insure a high level of returns.

Topics discussed for the first staff development training session:

- Print Shop Deluxe
- Basic Windows
- WordPerfect

The committee decided to provide two breakfast training sessions from 7:30 AM to 8:45 AM. The dates will be decided at the next meeting.

Discussions:

- Opportunities to earn certification credits for in-service training
- Computer camp for teachers during summer break
- Training in use of Josten's Tapestry program

Next meeting: Thursday, February 19, 1996

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Author(s): Diane E. Valovich	
Corporate Source: Nova Southeastern University	Publication Date: 8/96

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